*Coaxial*

# Power Splitter/Combiner

## ZSC-2-1+

2 Way-0° 50Ω 0.1 to 400 MHz

*Generic photo used for illustration purposes only*

CASE STYLE: M22

| Connectors | Model |
|---|---|
| **BNC** | ZSC-2-1+ |
| **BRACKET (OPTION "B")** | |
| **BRACKET (OPTION "BR")** | |

***+RoHS Compliant***

*The +Suffix identifies RoHS Compliance. See our web site for RoHS Compliance methodologies and qualifications*

### Maximum Ratings

| | |
|---|---|
| Operating Temperature | -55°C to 100°C |
| Storage Temperature | -55°C to 100°C |
| Power Input (as a splitter) | 1W max. |
| Internal Dissipation | 0.125W max. |

Permanent damage may occur if any of these limits are exceeded.

### Coaxial Connections

| | |
|---|---|
| SUM PORT | 2 |
| PORT 1 | 1 |
| PORT 2 | 3 |

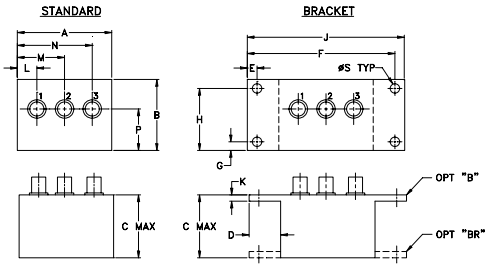
### Features

- wideband, 0.1 to 400 MHz
- low insertion loss, 0.4 dB typ.
- good isolation, 25 dB typ.
- excellent amplitude unbalance, 0.1 dB typ.
- excellent phase unbalance, 0.2 deg. typ.
- rugged shielded case

### Applications

- VHF/UHF
- communications systems
- instrumentation

### Outline Drawing




### Outline Dimensions (inch / mm)

| A | B | C | D | E | F | G | H |
|---|---|---|---|---|---|---|---|
| 2.25 | 1.38 | 1.24 | .50 | .150 | 3.100 | .138 | 1.238 |
| 57.15 | 35.05 | 31.50 | 12.70 | 3.81 | 78.74 | 3.51 | 31.45 |

| J | K | L | M | N | P | S | wt |
|---|---|---|---|---|---|---|---|
| 3.25 | .10 | .40 | 1.15 | 1.86 | .64 | .150 | grams |
| 82.55 | 2.54 | 10.16 | 29.21 | 47.24 | 16.26 | 3.81 | 74.0 |

### Electrical Specifications

| FREQ. RANGE (MHz) | ISOLATION (dB) | | | | | | INSERTION LOSS (dB) ABOVE 3.0 dB | | | | | | PHASE UNBALANCE (Degrees) | | | AMPLITUDE UNBALANCE (dB) | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | L | | M | | U | | L | | M | | U | | L | M | U | L | M | U |
| $f_L$-$f_U$ | Typ. | Min | Typ. | Min | Typ. | Min | Typ. | Max. | Typ. | Max. | Typ. | Max. | Max. | Max. | Max. | Max. | Max. | Max. |
| 0.1-400 | 20 | 15 | 25 | 20 | 25 | 20 | 0.2 | 0.5 | 0.4 | 0.75 | 0.6 | 1.0 | 2 | 3 | 4 | 0.15 | 0.2 | 0.3 |

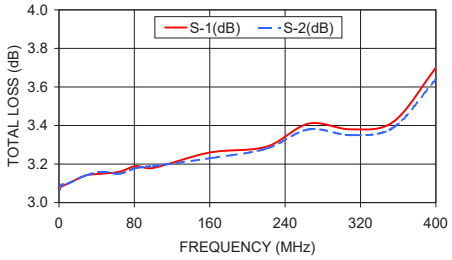
L = low range [$f_L$ to 10 $f_L$] M = mid range [10 $f_L$ to $f_U$/2] U= upper range [$f_U$/2 to $f_U$]

### Typical Performance Data

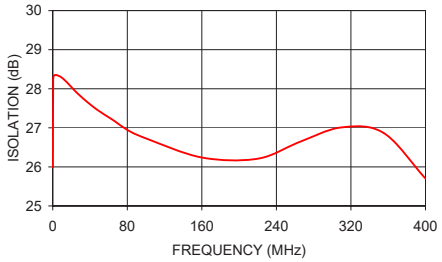
| Frequency (MHz) | Total Loss[1] (dB) | | Amplitude Unbalance (dB) | Isolation (dB) | Phase Unbalance (deg.) | VSWR S | VSWR 1 | VSWR 2 |
|---|---|---|---|---|---|---|---|---|
| | S-1 | S-2 | | | | | | |
| 0.10 | 3.07 | 3.06 | 0.00 | 25.99 | 0.01 | 1.09 | 1.19 | 1.19 |
| 0.40 | 3.08 | 3.07 | 0.01 | 27.93 | 0.03 | 1.05 | 1.12 | 1.12 |
| 1.00 | 3.08 | 3.09 | 0.01 | 28.33 | 0.10 | 1.04 | 1.11 | 1.11 |
| 10.00 | 3.10 | 3.10 | 0.01 | 28.28 | 0.04 | 1.03 | 1.10 | 1.10 |
| 28.00 | 3.14 | 3.14 | 0.00 | 27.85 | 0.03 | 1.02 | 1.09 | 1.09 |
| 46.00 | 3.15 | 3.16 | 0.01 | 27.49 | 0.05 | 1.02 | 1.09 | 1.09 |
| 64.00 | 3.16 | 3.15 | 0.01 | 27.21 | 0.09 | 1.02 | 1.10 | 1.10 |
| 82.00 | 3.19 | 3.18 | 0.01 | 26.92 | 0.02 | 1.01 | 1.10 | 1.10 |
| 100.00 | 3.18 | 3.19 | 0.01 | 26.73 | 0.04 | 1.01 | 1.10 | 1.10 |
| 160.00 | 3.26 | 3.23 | 0.02 | 26.24 | 0.20 | 1.03 | 1.12 | 1.12 |
| 220.00 | 3.29 | 3.28 | 0.02 | 26.21 | 0.17 | 1.06 | 1.15 | 1.16 |
| 265.00 | 3.41 | 3.38 | 0.03 | 26.64 | 0.20 | 1.09 | 1.18 | 1.19 |
| 310.00 | 3.38 | 3.35 | 0.03 | 27.01 | 0.27 | 1.13 | 1.22 | 1.23 |
| 355.00 | 3.42 | 3.39 | 0.03 | 26.87 | 0.16 | 1.19 | 1.26 | 1.28 |
| 400.00 | 3.70 | 3.64 | 0.06 | 25.70 | 0.13 | 1.26 | 1.30 | 1.32 |

1. Total Loss = Insertion Loss + 3dB splitter loss.

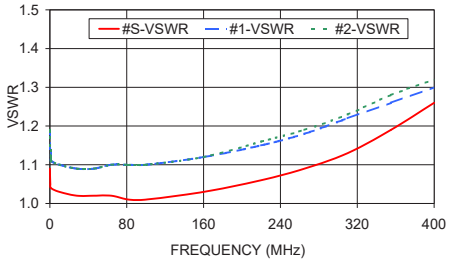
ZSC-2-1+
TOTAL LOSS



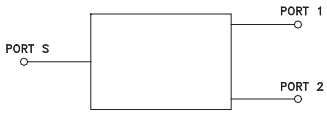

ZSC-2-1+
ISOLATION




ZSC-2-1+
VSWR




### electrical schematic




**Notes**

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